

DEVICE FOR COLLECTION AND ASSAY OF ORAL FLUIDS

ABSTRACT OF THE DISCLOSURE

A device for collecting and transporting aqueous fluid from the oral cavity to a lateral chromatographic strip for test is disclosed. The lateral chromatographic strip is placed within and extend along a cavity defined in a housing. At least one inspection site to the lateral chromatographic strip is provided to enable inspection of selected sites on the lateral chromatographic strip for test results. A porous wick material protrudes from the housing to a collection site exterior of the housing at one end and communicates to the lateral chromatographic strip at the other end. The porous wick material has particulate construction, the particles adsorbing aqueous oral fluid to transport the fluid from the mouth to the lateral chromatographic strip without substantial absorption. The particles of the porous wick material are bound together to define a continuous interstitial volume for the flow of oral fluid to be transported and are treated to be hydrophilic to the adsorbed oral fluids. The porous wick material readily releases oral fluid to the lateral chromatographic strip. Prevention of reverse flow to the oral cavity from the lateral chromatographic strip naturally occurs due to the circuitous flow path of the porous wick material. A bite plate is coupled to the housing and insertable between the teeth of the patient to position the porous wick in the oral cavity for collecting the oral fluid. The bite plate is typically held in place by the occlusal force of the teeth, preferably the molars and/or the bicuspsids, to position the porous wick in the buccal space. By observing the lateral chromatographic strip while the test device is in the mouth immediate test results are obtained.